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DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. § 371

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(If known, see 37 CFR § 1.5)

known, see 37 CFR § 1.5)

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INTERNATIONAL APPLICATION NO.

PCT/EP00/03724

INTERNATIONAL FILING DATE

20 APRIL 2000

PRIORITY DATE CLAIMED

30 APRIL 1999

TITLE OF INVENTION

CONCENTRATED PERFUME COMPOSITIONS AND MANUFACTURE OF FABRIC SOFTENING COMPOSITIONS THEREFROM

APPLICANT(S) FOR DO/EO/US

FRASER, STUART BERNARD

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a FIRST submission of items concerning a filing under 35 U.S.C. § 371.
2. ☐ This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. § 371.
3. ☐ This express request to begin national examination procedures (35 U.S.C. §371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. §371(b) and PCT Articles 22 and 39(I).
4. ☒ A proper DEMAND for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application, as filed (35 U.S.C. §371(c)(2))
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☒ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U.S.C. §371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. §371(c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made, however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. §371(c)(3)).
9. ☒ An unexecuted oath or declaration of the inventor(s) (35 U.S.C. §371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. §371(c)(5)).

Items 11. To 16. Below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 C.F.R. §§ 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. §§3.28 and 3.31 is included.
13. ☒ A FIRST preliminary amendment.
☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☐ Other items or information:

JG07 Rec'd PCT/PTO 30 OCT 2001

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(201) 840-2925

10/009610

PATENT
#99-0276-UNI
Case #C3913(C)

Express Mail Label No.: ET 506 464 969 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Fraser
Deposited: October 30, 2001
For: CONCENTRATED PERFUME COMPOSITIONS AND MANUFACTURE
OF FABRIC SOFTENING COMPOSITIONS THEREFROM

Edgewater, New Jersey 07020
October 30, 2001

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

With regard to the above-identified application filed concurrently herewith, please amend the following:

In the Claims:

Please enter the following amended claims:

4. (Amended) A composition according to claim 1 comprising 40-85 wt% perfume.
5. (Amended) A composition according to claim 1 wherein the perfume has a solubility in water of equal to, or less than 0.5g in 100 ml of water at 20°C.
6. (Amended) A composition according to claim 1 comprising 0.2 wt% to 1 wt% dye.

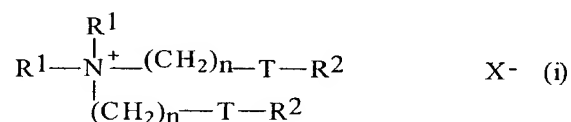
7. (Amended) A composition according to claim 1 wherein the dye has a solubility in water of equal to or greater than 5g of 100 ml of water at 20°C.

8. (Amended) A composition according to claim 1 comprising 10 wt% - 30 wt% cationic surfactant as the stabilising agent.

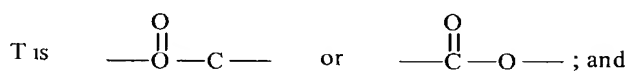
9. (Amended) A composition according to claim 1 wherein the cationic stabilising agent is a compound of general formula (A)



Wherein R¹ and R² are independently C₁-C₆ alkyl, alkenyl, substituted alkyl or alkenyl groups, or hydroxyalkyl groups and R³ and R⁴ are independently C₈-C₂₈ alkyl, alkenyl, substituted alkyl or alkenyl groups, or hydroxyalkyl groups or, a compound of general formula (I)

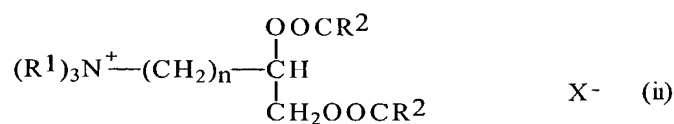


wherein each R¹ group is independently selected from C₁₋₄ alkyl, hydroxyalkyl or C₂₋₄ alkyl groups; and wherein each R² group is independently selected from C₈₋₂₈ alkyl or alkenyl groups; X⁻ is chloride or methosulphate.



n is an integer from 0-5

or, a compound of general formula (ii)



wherein R^1 , n , R^2 and X^- are as defined above.

10. (Amended) A composition according to claim 1 wherein the weight ratio of perfume to dye is within the range 200:1 to 5:1, preferably 100:1 to 15:1.

11. (Amended) A composition according to claim 1 wherein the weight ratio of perfume to stabilising agent is 10:1 to 1:1, preferably 5:1 to 1:1.

12. (Amended) A composition according to claim 1 comprising 0.1-10 wt% water.

13. (Amended) A method of preparing a fabric softening composition comprising the steps;

(i) preparing a base composition comprising a cationic and/or nonionic fabric softening agent, and

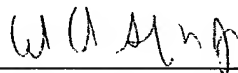
(ii) adding to (i) a composition according to claim 1, to produce the fabric softening composition.

REMARKS

The present amendment is submitted to eliminate multiple dependencies and to correct minor typographical errors. The amendments were not intended to and should not be construed to have been made for any reasons related to patentability of the claims.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attachment is captioned "Version with Markings to Show Changes Made".

Respectfully submitted,



Edward A. Squillante, Jr.
Reg. No. 38,319
Attorney for Applicant(s)

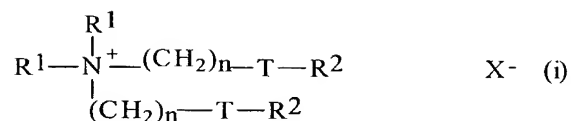
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$\frac{d}{dt} \left(\frac{1}{2} m v^2 + U(r) \right) = -\nabla U(r) \cdot v$

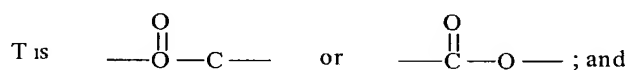
9. (Amended) A composition according to ~~any one of the preceding claims~~claim 1 wherein the cationic stabilising agent is a compound of general formula (A)



formula (I)

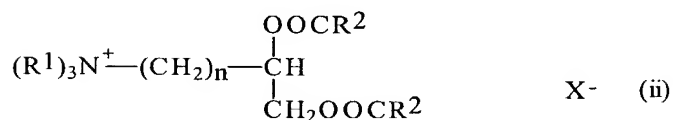


wherein each R¹ group is independently selected from C₁₋₄ alkyl, hydroxyalkyl or C₂₋₄ alkyl groups; and wherein each R² group is independently selected from C₈₋₂₈ alkyl or alkenyl groups; X⁻ is chloride or methosulphate.



n is an integer from 0-5

or, a compound of general formula (ii)



wherein R¹, n, R² and X⁻ are as defined above.

10. (Amended) A composition according to any one of the preceding claims claim 1 wherein the weight ratio of perfume to dye is within the range 200:1 to 5:1, preferably 100:1 to 15:1.

Concentrated Perfume Compositions and
Manufacture of a Fabric Softening Compositions Therefrom

Technical Field

5

The present invention relates to concentrated perfume compositions. The invention further relates to a method of manufacturing a fabric softening composition from the concentrated perfume composition, and, to a fabric
10 softening composition so produced.

Background and Prior Art

In the commercial manufacture of fabric softening
15 compositions the accurate dosing of minor ingredients e.g. dyes, perfumes etc. is often problematic because of the low levels of these ingredients required in the compositions so that the relative proportions of these minor ingredients are difficult to control. Also when compositions are
20 produced in batches this requires that the exact levels of minor ingredients, particularly dye and perfume, must be added individually which increases the possibility of inaccurate dosing.

25 It is also known that concentrated perfume compositions are prone to instability problems.

Thus there is a need to provide stable concentrated compositions of well-known minor ingredients such as dyes
30 and perfumes for use in the manufacture of coloured and perfumed compositions such as fabric softening compositions.

WO 98/08927 (Colgate-Palmolive Company) discloses
 colour/perfume concentrate compositions comprising 0.01% to
 85% by weight of a polymer bound water soluble azo dye,
 99.95% to 15% by weight of a perfume and 0 to 99.99% by
 5 weight of a nonionic surfactant or an ethoxylated glycerol
 type compound.

WO 00/06690 (Colgate-Palmolive Company), published 10
 February 2000, discloses a water-in-oil microemulsion which
 10 is capable of being mixed with an aqueous fabric softener
 base composition and which comprises 5 to 80% by weight of
 a surfactant fabric softener, a solvent, perfume and
 colourant.

15 EP 922 755 (Procter & Gamble) discloses compositions
 wherein alcohol ethoxylates are used to solubilise dye.

US 5 447 644 (IFF Inc.) discloses a method of controlling
 the viscosity of fabric softening compositions to improve
 20 shelf life by first forming a micro-emulsion of perfume and
 surfactant.

The present invention seeks to address the above problems
 and to provide a stable concentrated composition which
 25 comprises at least two minor ingredients found in fabric
 softening compositions at higher levels than are typically
 used in a consumer product.

Definition of the Invention

30

Accordingly the present invention provides a liquid
 composition comprising;

- (a) 15 - 95 wt% lipophilic perfume,
- (b) 0.05 - 5 wt% water-soluble dye,
- (c) 4 - 50 wt% of stabilising agent comprising a
cationic stabilising agent, and
- 5 (d) water-miscible solvent,

wherein the composition comprises between 0.1 to 20 wt%
water, and the cationic stabilising agent has an $L\alpha$ to $L\beta$
transition temperature of 45°C or below for a 5% wt
10 dispersion of the stabilising agent in water, and the
solvent is present in an amount of up to 10 wt%.

All percentages by weight herein refer to the percentage
based on the total amount of the composition.

15

The invention also provides a method of preparing a fabric
softening composition comprising the steps;

- (i) preparing a base composition comprising a
20 cationic and/or nonionic fabric softening agent,
and
- (ii) adding to (i) a composition as defined above
to produce the fabric softening composition.

25 Furthermore the invention also provides a fabric softening
composition obtainable by the method above.

The invention provides a concentrated perfume-containing
composition that also contains dye, both in a much higher
30 concentration than would typically be found in a fabric
softening composition. This provides a stable pre-mix of
minor ingredients (perfume and dye). Which can be prepared

at suitable ratios for direct dosage into a base composition. Excellent accuracy of the dosage of these minor ingredients into a base composition is achieved and this thus simplifies automated preparation of fabric softening compositions.

Furthermore the concentrated perfume and dye compositions allow accurate dosing of these minor ingredients to a base composition at a late stage (eg. after the main active ingredients have been mixed) of the manufacture of a fabric softening composition. This in turn allows a wide range of compositions to be prepared from a pre-compounded base composition, so providing easier and more versatile manufacture. Thus changing between variant formulations is simplified as only a small part of the automated production apparatus requires cleaning when the 'minors' are changed in the composition (as a single 'minor' composition can be used in the process). This provides reduced aqueous effluent, saves production time and provides increased production flexibility.

In particular, the invention provides the preparation of a concentrated composition of perfume and dye, wherein the perfume and dye are of different lipophilic and lipophobic characters.

Detailed Description of the Invention

The composition of the invention is preferably an isotropic liquid, most preferably a microemulsion, and especially a water-in-oil microemulsion.

It is preferred that if the composition is an isotropic liquid it does not contain liquid crystalline phases.

Where the compositions are not clear, they should be stable to storage at 20°C for several days eg. 2 days. Whilst some degree of cloudiness can be tolerated in the compositions, it is preferred that they are isotropic liquids. Such isotropic liquids may have included therein minor amounts of materials that are not isotropic, provided, the stability of the composition is not adversely affected.

Perfume

The perfume used in the invention is lipophilic in nature. By a lipophilic perfume is meant that the perfume has a solubility in water (i.e. it dissolves) of 1g or less in 100 ml of water at 20°C. Preferably the solubility in water is equal to or less than 0.5g, preferably equal to or less than 0.3g in 100ml of water at 20°C. Such perfumes may be referred to as water-insoluble perfumes.

20

The perfume may be any conventional perfume used in fabric softening compositions. The perfume will thus preferably be compatible with the fabric softening actives typically found in fabric softening compositions, although, not many commercially available perfumes will not be compatible. Also the perfume will generally be polar in nature.

When the composition is a water-in-oil microemulsion the perfume will, because of its lipophilic nature, form the predominant part of the oil phase. It is preferred if the perfume comprises 60% by weight or more, preferably 70% by

30

weight or more, of the oil phase when the composition is a water-in-oil microemulsion.

Perfumes contain a number of ingredients which may be
5 natural products or extracts such as essential oils, absolutes, resinoids, resins etc. and synthetic perfume components such as hydrocarbons, alcohols, aldehydes, ketones ethers, acids, esters, acetals, ketals, nitriles, phenols, etc. including saturated and unsaturated
10 compounds, aliphatic, alicyclic, heterocyclic and aromatic compounds. Examples of such perfume components are to be found in "Perfume and Flavour Chemicals" by Steffen Arctander (Library of Congress catalogue card no. 75-91398).

15

Any lipophilic perfume which is compatible with nonionic and/or cationic compounds may be used in the composition.

The compositions contain 15 - 95 wt% of lipophilic perfume,
20 preferably 20 - 90 wt%, more preferably 25 - 85 wt%, such as 40 - 85 wt%, e.g. 45 - 80 wt%.

More than one lipophilic perfume may be used in the compositions of the invention.

25

Dye

The dye is an at least a sparingly water-soluble dye and may be any such dye conventionally used in softening and cleaning products. It is especially preferred that the dye
30 has a solubility in water of equal to, or greater than, 2g in 100 ml of water at 20°C, preferably equal to or greater than 5g.

The dye may be an acid-dye or other suitable type of dye. For an acid dye, the solubility may be as high as 50g in 100ml of water of 20°C.

- 5 The dye is present in an amount of 0.05 - 5 wt%, preferably 0.1 - 2 wt%, more preferably 0.2 - 1 wt%, eg 0.25 - 0.7 wt%.

The weight ratio of perfume to dye is preferably within the
10 range 200:1 to 5:1, more preferably 150:1 to 10:1, e.g. 100:1 to 15:1, such as 80:1 to 20:1. Depending upon the amount of dye required, the ratio could be towards the lower end of the ratio e.g. 40:1 to 25:1. However if only a
15 e.g. 900:1 to 200:1, eg. 900:1 to 250:1.

Stabilising agent

The stabilising agent comprises a cationic stabilising agent having an $L\alpha$ to $L\beta$ transition temperature of 45°C or
20 below for a 5 wt% dispersion of the stabilising agent in water. This $L\alpha$ to $L\beta$ transition can be measured by DSC as defined in "Handbook of Lipid Bilayers", D Marsh, CRC Press, Boca Raton, Florida, 1990 (pages 137 and 337).

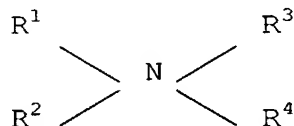
- 25 Any cationic stabilising agent meeting the above transition temperature requirement, may be used according to the invention. Compounds falling within definitions of formulae (i) are (ii) below and meeting the transition temperature requirements are cationic stabilising agents according to
30 the invention. Compounds falling within the definitions (i) and (ii) but which do meet the transition temperature

requirements are not cationic stabilising agents as herein defined.

The cationic stabilising agent used in the invention is preferably a cationic surfactant, more preferably one of the quaternary ammonium compounds of formulae (A), (i) or (ii) below. Compounds of these formulae are only stabilising agents as referred to herein if they meet the above transition temperature requirement.

10

(A)



15 wherein R^1 and R^2 are independently C_1 - C_6 alkyl, alkenyl, substituted alkyl or alkenyl groups, or hydroxyalkyl groups and R^3 and R^4 are independently C_8 - C_{28} alkyl, alkenyl, substituted alkyl or alkenyl groups, or hydroxalkyl groups.

Preferably R^1 and R^2 are independently C_1 - C_2 groups and R^3 and R^4 are independently C_{12} - C_{22} groups, X^- is a compatible anion eg Cl^- , $MESO_4^-$, Br^- , I^- acetate etc.

25

A cationic surfactant stabiliser according to formula (A) is ditallowyl dimethyl ammonium chloride.

30

The cationic stabiliser may also be a compound as defined by formulae (i) and (ii) below, provided, that compound meets the transition temperature requirements therein defined.

A cationic stabiliser according to formula (i) below is dioleyl ester of methyl triethanol ammonium methosulphate

wherein one R^1 is methyl and one is hydroxyethyl, both n are 2, both T are O-C=O, and both R^2 are tallow.

It is preferred that the stabilising agent is compatible
5 with conventional fabric softening agents, and in particular with the fabric softening agents described herein. Mixtures of cationic stabilising agents may also be included. In many cases the cationic stabilising agent and the fabric softening agent will be the same compound.

10

Optional stabilising agent

Nonionic stabilising agents may be used in addition to the cationic stabilising agent. Preferably the nonionic stabilising agent is a nonionic surfactant. Suitable types
15 of nonionic surfactants include alcohol alkoxyates especially ethoxyates, preferably C_8 - C_{20} alkyl esters alkoxyated with an average of 1 to 10 alkoxyate units, preferably 1 to 7 alkoxyate units. The ethoxyates, especially secondary alcohol ethoxyates, are particularly
20 preferred.

The total amount of stabilising agent (cationic or cationic plus nonionic) in the compositions is 4 wt% - 50 wt%, preferably 10-30 wt%, more preferably 15-25 wt%. Where a
25 mixture of cationic and nonionic stabilisers are used, the weight ratio of cationic:nonionic is preferably in the range 99:1 to 50:50, more preferably 99:1 to 60:40.

It is especially preferred that 10wt% - 30wt% cationic
30 surfactant is used as the stabilising agent, plus optionally an additional amount of nonionic stabilising agent.

The weight ratio of perfume to the total amount of stabilising agent is preferably within the range 10:1 to 1:1, more preferably 8:1 to 1:1, e.g. 5:1 to 1:1, e.g. 3:1 to 1:1.

5

Water-miscible solvent

The compositions comprise water-miscible solvents in amounts of up to 10wt% of the composition, preferably up to 7.5 wt% as an essential element of the invention. The
10 solvent is preferably present in an amount of 0.1 - 10wt %, more preferably 0.5 to 7.5 wt%.

The water-miscible solvent may be solvent having a C₁-C₆ alkyl chain such as ethanol or isopropanol. The solvent may
15 be present in the compositions either through direct addition or it may be added by being present in the stabilising agent or other component of the composition.

The compositions may also include low amounts (up to 5% by
20 weight) of 'minor' ingredients (other than dye or perfume) typically found in fabric softening compositions, provided, the stability of the composition is not affected. 'Minor' ingredients that may be included include fatty acids, non-aqueous solvents, fluorescers, hydrotropes, antifoaming
25 agents, anti-redeposition agents, enzymes, optical brightening agents, opacifiers, anti-shrinking agents, anti-wrinkle agents, anti-spotting agents, germicides, fungicides, anti-oxidants, UV absorbers (sunscreens), sequestrants, preservative, chlorine scavengers, pH
30 buffering agents, dye fixatives, anti-corrosion agents, drape imparting agents, and antistatic agents.

The compositions comprise 0.1-20 wt% water, preferably 0.1-15 wt%, more preferably 0.1-10 wt%.

Any suitable method of preparing the compositions of the invention may be used. For example the perfume, stabilising agent and any other oil soluble ingredients are mixed together to form a clear liquid. Gentle heating and/or stirring may be necessary at this point to produce the clear liquid (typically heating at 25-45°C). Water-soluble ingredients including the dye (and other 'minor' ingredients such as preservative) are dissolved separately in the required amount of water. The water-soluble aqueous portion is added to the perfume containing mixture, in aliquots if required, with stirring to produce the composition.

A further aspect of the present invention provides a method of producing a fabric softening composition by adding a composition of the invention to a base composition comprising a cationic and/or nonionic fabric softening agent. Preferably the base composition is aqueous. The addition may be made in any suitable manner.

The composition is added at a suitable % by weight to give the required amount of perfume and dye etc. in the resultant fabric softening composition. The addition amount, and effectiveness of mixing, can be easily checked by measuring the colour. The fabric softener composition produced by the above method contains cationic and/or nonionic fabric softening agents.

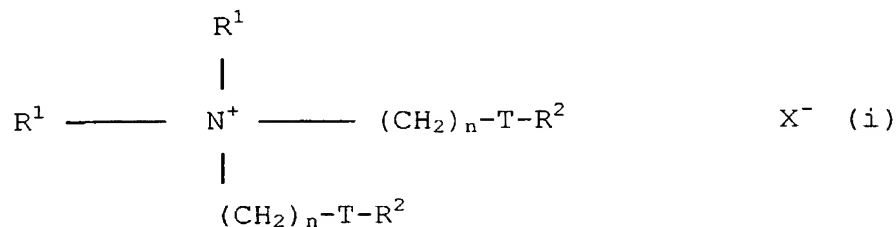
Types of cationic fabric softeners that may be used in the fabric softening compositions produced from the compositions of the invention include substantially water-insoluble quaternary ammonium materials, for example, a
 5 compound having two C₁₂-C₂₂ alkyl or alkenyl groups connected to a quaternary ammonium head group or a compound comprising a single long chain with an average chain length equal to or greater than C₂₀. Preferably these are connected to the quaternary ammonium head group via at
 10 least one ester link.

More preferably, the invention is useful for preparing compositions comprising quaternary ammonium material comprising a compound having two long chain alkyl or
 15 alkenyl chains with an average chain length equal to or greater than C₁₄. Even more preferably, each chain has an average chain length equal to or greater than C₁₆. Most preferably at least 50% of each long chain alkyl or alkenyl group has a chain length of C₁₈.

20

It is preferred if the long chain alkyl or alkenyl groups are predominantly linear. The especially preferred ester-linked quaternary ammonium materials for use in the invention can be represented by the formula (i):

25



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wherein each R¹ group is independently selected from C₁₋₄

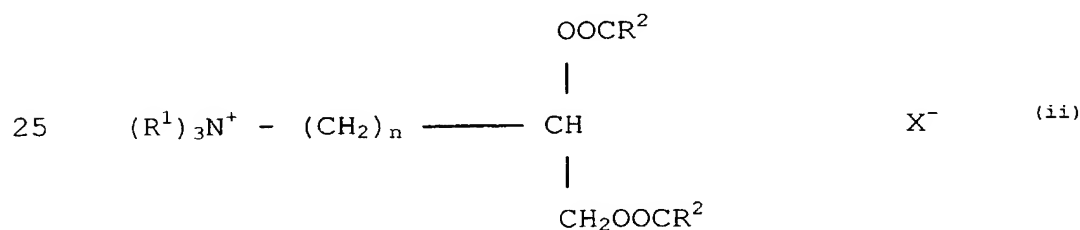
alkyl, hydroxyalkyl or C₂₋₄ alkenyl groups; and wherein each R² group is independently selected from C₈₋₂₈ alkyl or alkenyl groups; X⁻ is any suitable counterion, for instance a halide, acetate or lower alkylsulphate ion, such as chloride or methosulphate,

$$\begin{array}{ccc} \text{O} & & \text{O} \\ || & & || \\ \text{T} & \text{is } -\text{O}-\text{C}- & \text{or } -\text{C}-\text{O}-; \text{ and} \end{array}$$

10 n is an integer from 0-5

Di(tallowyloxyethyl) dimethyl ammonium chloride, available from Clariant, is especially preferred, also Di(hardened tallowyloxyethyl) dimethyl ammonium chloride, ex Clariant).
 15 Dioleylester of methyl triethanol ammonium methosulphate wherein one R¹ is methyl and one is hydroxyethyl, both n are 2, both T are O-C=O, and both R² are tallow may also be used.

20 A second preferred type of quaternary ammonium material can be represented by the formula (ii):



wherein R¹, n, R² and X⁻ are as defined above.

30

It is advantageous for environmental reasons if the quaternary ammonium material is biologically degradable.

Preferred materials of this class such as 1,2 bis[hardened
tallowoyloxy]-3- trimethyl ammonium propane chloride and
their method of preparation are, for example, described in
US 4 137 180 (Lever Brothers). Preferably these materials
5 comprise small amounts of the corresponding monoester as
described in US 4 137 180 for example 1-hardened tallow-
oyloxy-2-hydroxy -3-trimethylammonium propane chloride.

The fabric softeners used in the compositions produced from
10 the compositions of the invention are not required to meet
the $L\alpha$ to $L\beta$ transition temperature referred to above. Only
the cationic stabilisers, which may be of formulae (i) or
(ii) above, are required to have the specified transition
temperature. If compounds of these formulae are used only
15 as a fabric softening active material, the transition
temperature requirement does not apply.

Substantially water-insoluble fabric softening compounds
are defined as fabric softening compounds having a
20 solubility of less than 1×10^{-3} wt % in demineralised
water at 20°C. Preferably the fabric softening compounds
have a solubility of less than 1×10^{-4} wt%, more
preferably less than 1×10^{-8} to 1×10^{-6} wt%.

25 The fabric softening compositions typically contain 1-8wt%
of the fabric softening compound, and are known as dilute
compositions. They may also contain higher amounts, such as
8-50% softening compounds in which case they are known as
concentrates.

Further ingredients, typically minor ingredients, may be
5 added to the fabric softener compositions produced by the
method described herein.

15 Example 1; concentrated perfume composition

	<u>grams of active</u> <u>ingredient</u>
Perfume* ¹	34.2
TETRANYL AO-1* ²	10.0
Patent blue dye	2.0
(10% aqueous solution by weight)	

*1 - SOFTLINE 2000 (ex Givaudan Roure; SOFTLINE IS A TRADEMARK)

*2 - TETRANYL AO-1 is 90% dioleyl ester of methyl triethanol ammonium methosulphate, 10% IPA (Ex Kao). TETRANYL is a trademark.

5 Example 2; concentrated perfume composition

The composition below was prepared according to the method of example 1.

	<u>grams of active</u> <u>ingredient</u>
Perfume* ³	34.2
AO-1* ²	10.0
Patent blue dye (5% aqueous solution by weight)	2.0
*3 SOFTLINE B53 ex Givaudan Roure	

10 Example 3; concentrated perfume composition

The composition below was prepared according to the method of example 1.

	<u>grams of active</u> <u>ingredient</u>
Perfume* ¹	34.2
PRAPAGEN 3445* ⁴	10.0
Patent blue dye (10% aqueous solution by weight)	2.0

15 *4 - PRAPAGEN 3445 is 70% ditallowyl dimethyl quaternary ammonium chloride, 20%IPA and 10% water (ex Clariant). PRAPAGEN is a trademark.

Example 4; concentrated perfume composition

The composition below was prepared according to the method of example 1.

5

	<u>grams of active</u> <u>ingredient</u>
Perfume* ⁵	34.2
ARQUAD 2T* ⁶ (as supplied)	12.2
RHODAMINE B dye (5% aqueous solution by weight)	2.0

*⁶ - cationic surfactant ditallowyl dimethyl quaternary ammonium chloride (ex Akzo). ARQUAD is a trademark.

*⁵ - HORIZON 2000 ex IFF. HORIZON is a trademark.
RHODAMINE is a trademark.

10

Example 5; concentrated perfume composition

The composition below was prepared according to the method of example 1.

	<u>grams of active</u> <u>ingredient</u>
Perfume* ⁵	34.2
AO-1 * ²	10.0
Patent blue dye (10% aqueous solution by weight)	2.0

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Example 6; concentrated perfume composition

The composition below was prepared according to the method of example 1.

	<u>grams of active</u> <u>ingredient</u>
Perfume ^{*3}	35.0
GENAPOL Coco 10 ^{*7}	3.0
AOT-1 ^{*8}	4.6
Patent blue dye (5% aqueous solution by weight)	2.0

^{*7} Genapol C-10 is coconut ethoxlated alcohol with an average of 10 moles of ethoxylate per mole of fatty alcohol (ex Clariant). GENAPOL is a trademark.

^{*8} TETRANYL AOT-1 is 80% dioleyl ester of methyl triethanol ammonium methosulphate, 20% dipropylene glycol solvent

10 Examples 1 to 6 were all stable, isotropic water-in-oil microemulsions.

Examples 7; use of example 1 to prepare a fabric softening composition

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A fabric softening base composition comprising 94.5 parts water and 5 parts dihardened tallow dimethyl ammonium chloride was prepared. To this 0.5 parts of example 1 was added and the composition stirred until homogeneous (to provide approximately 0.37% perfume, 0.11% AO-1 and 0.002% dye). A stable fabric softening composition was produced that showed the same physical characteristics as the comparative example below.

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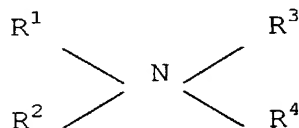
4 °C		24 hours old	2 weeks	4 weeks
	Prototype	113	98	88
	Control	114	111	101
Ambient	Prototype	113	103	86
	Control	114	112	96
37°C	Prototype	113	101	84
	control	114	107	90

Claims

1. A liquid composition comprising;
 - (a) 15 - 95 wt% lipophilic perfume,
 - (b) 0.05 - 5 wt% water-soluble dye,
 - (c) 4 - 50 wt% of a stabilising agent comprising a cationic stabilising agent, and
 - (d) water miscible solventwherein the composition comprises between 0.1 to 20 wt% water, the cationic stabilising agent has an $L\alpha$ to $L\beta$ transition temperature of 45°C or below for a 5 wt% dispersion of the stabilising agent in water and the solvent is present in an amount of up to 10wt%.
2. A composition according to claim 1 wherein the composition is an isotropic liquid.
3. A composition according to claim 2 wherein the isotropic liquid is a water-in-oil microemulsion.
4. A composition according to any one of the preceding claims comprising 40-85 wt% perfume.
5. A composition according to any one of the preceding claims wherein the perfume has a solubility in water of equal to, or less than, 0.5g in 100 ml of water at 20°C.
6. A composition according to any one of the preceding claims comprising 0.2 wt% to 1 wt% dye.

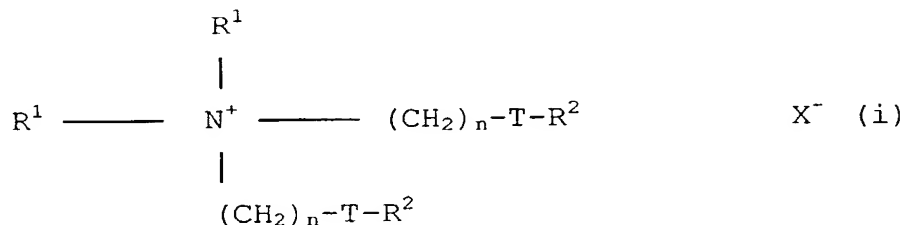
7. A composition according to any one of the preceding claims wherein the dye has a solubility in water of equal to or greater than, 5g in 100 ml of water at 20°C.
8. A composition according to any one of the preceding claims comprising 10 wt% - 30 wt% cationic surfactant as the stabilising agent.
9. A composition according to any one of the preceding claims wherein the cationic stabilising agent is a compound of general formula (A)

(A)



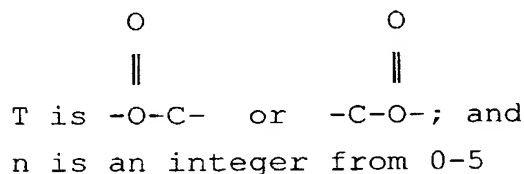
wherein R¹ and R² are independently C₁-C₆ alkyl, alkenyl, substituted alkyl or alkenyl groups, or hydroxyalkyl groups and R³ and R⁴ are independently C₈-C₂₈ alkyl, alkenyl, substituted alkyl or alkenyl groups, or hydroxalkyl groups

or, a compound of general formula (i)

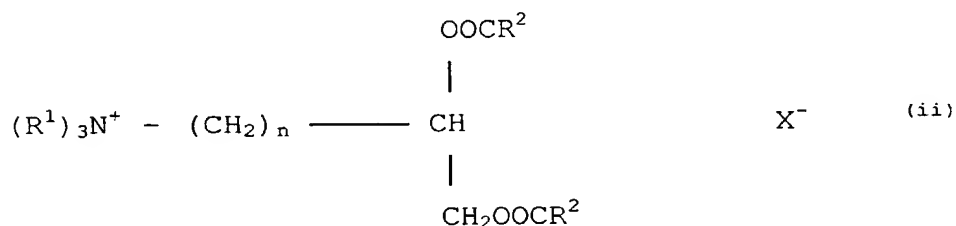


wherein each R¹ group is independently selected from C₁₋₄

alkyl, hydroxyalkyl or C₂₋₄ alkenyl groups; and wherein each R² group is independently selected from C₈₋₂₈ alkyl or alkenyl groups; X⁻ is chloride or methosulphate.



or, a compound of general formula (ii)



wherein R¹, n, R² and X⁻ are as defined above.

10. A composition according to any one of the preceding claims wherein the weight ratio of perfume to dye is within the range 200:1 to 5:1, preferably 100:1 to 15:1.
11. A composition according to any one of the preceding claims wherein the weight ratio of perfume to stabilising agent is 10:1 to 1:1, preferably 5:1 to 1:1.
12. A composition according to any one of the preceding claims comprising 0.1- 10 wt% water.

13. A method of preparing a fabric softening composition comprising the steps;

(i) preparing a base composition comprising a cationic and/or nonionic fabric softening agent, and

(ii) adding to (i) a composition according to any one of the preceding claims,

to produce the fabric softening composition.

14. A fabric softening composition obtainable by the method of claim 13.

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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/EP00/03724 (22) International Filing Date: 20 April 2000 (20.04.00) (30) Priority Data: 9910101.6 30 April 1999 (30.04.99) GB (71) Applicant (for AE AU BB CA CY GB GD GH GM IE IL KE LC LK LS MN MW NZ SD SG SL SZ TT TZ UG ZA ZW only): UNILEVER PLC [GB/GB]; Unilever House, Blackfriars, London EC4P 4BQ (GB). (71) Applicant (for all designated States except AE AU BB CA CY GB GD GH GM IE IL IN KE LC LK LS MN MW NZ SD SG SL SZ TT TZ UG US ZA ZW): UNILEVER NV [NL/NL]; Weena 455, NL-3013 AL Rotterdam (NL). (71) Applicant (for IN only): HINDUSTAN LEVER LIMITED [IN/IN]; Hindustan Lever House, 165/166 Backbay Reclamation, Maharashtra, Mumbai 400 020 (IN). (72) Inventor; and (75) Inventor/Applicant (for US only): FRASER, Stuart, Bernard [GB/GB]; Unilever Research Port Sunlight, Quarry Road East, Bebington, Wirral, Merseyside CH63 3JW (GB).		(74) Agent: HODGETTS, Catherine, Dawn; Unilever PLC, Patent Department, Colworth House, Sharnbrook, Bedford, Bedfordshire MK44 1LQ (GB). (81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: CONCENTRATED PERFUME COMPOSITIONS AND MANUFACTURE OF FABRIC SOFTENING COMPOSITIONS THEREFROM (57) Abstract <p>The invention provides liquid compositions comprising: (a) 15 – 95 wt % lipophilic perfume, (b) 0.05 – 5 wt % water-soluble dye, (c) 4 – 50 wt % of a stabilising agent comprising a cationic stabilising agent, and (d) water miscible solvent wherein the composition comprises between 0.1 to 20 wt % water, the cationic stabilising agent has an $L\alpha$ to $L\beta$ transition temperature of 45 °C or less for a 5 wt % dispersion of the stabilising agent in water, and the solvent is present in an amount of up to 10 wt %. These concentrated perfume and dye compositions find particular application in fabric softening compositions. Also provided is a method of preparing a fabric conditioning composition by preparing a base composition comprising a cationic and/or nonionic fabric softening agent, and adding thereto, a composition of the invention. The fabric conditioning compositions thus produced are also provided. Simplified automated manufacture of fabric softening compositions is achieved.</p>		

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY
(Includes Reference to PCT International Applications)ATTORNEY'S DOCKET NUMBER
C3913 (C)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention.

CONCENTRATED PERFUME COMPOSITIONS AND MANUFACTURE OF FABRIC SOFTENING COMPOSITIONS THEREFROM

the specification of which (check only one item below):

☐ is attached hereto.☐ was filed as United States application Serial No. _____ on _____
and was amended on _____ (if applicable)☒ was filed as PCT International application PCT/EP00/03724 on 20th April 2000
and was amended under PCT Article 19 on _____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

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COUNTRY (if PCT indicate PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
UNITED KINGDOM	9910101.6	30 th April 1999	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
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U.S. APPLICATION(S)		STATUS (CHECK ONE)		
U.S. APPLICATION NUMBER	U.S. Filing Date	PATENTED	PENDING	ABANDONED
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PCT APPLICATION NUMBER	PCT Filing Date	U.S. Serial Numbers Assigned (if any)		
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(includes Reference to PCT International Applications)

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POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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201

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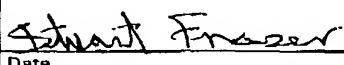
202

Full Name of Inventor	Family Name	First Given Name	Second Given Name
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203

Full Name of Inventor	Family Name	First Given Name	Second Given Name
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Signature of Inventor 201 	Signature of Inventor 202	Signature of Inventor 203
Date 30 th November 2001	Date	Date